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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,686	01/16/2002	Alfred L. Goldberg	HMV-070.01	5117

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FOLEY HOAG, LLP
PATENT GROUP, WORLD TRADE CENTER WEST
155 SEAPORT BLVD
BOSTON, MA 02110

EXAMINER

QIAN, CELINE X

ART UNIT PAPER NUMBER

1636

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,686

Applicant(s)

GOLDBERG ET AL.

Examiner

Celine X Qian

Art Unit

1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-62 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claims 1-62 are pending in the application.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to an isolated and or/recombinant F-box protein, classified in class 530, subclass 350.
- II. Claims 13-20, 22 and 23, drawn to a nucleic acid encoding the F-box protein, a vector comprising said nucleic acid, and a method of making said protein by culturing host cells transfect with said vector, classified in class 536, subclass 23.1, class 435, subclass 320.1; 325.
- III. Claim 21, drawn to an transgenic animal having cells harbor a transgene comprising the nucleic acid encoding F-box protein, classified in class 800, subclass 13.
- IV. Claims 24-26, drawn to a reconstituted protein mixture comprising a cell or tissue specific F-box protein polypeptide and a substrate protein, classified in class 530, subclass 402.
- V. Claims 27-41 and 49, drawn to an assay for identifying an inhibitor of cell or tissue specific F-box protein mediated ubiquitination, classified in class 530, subclass 387.1.
- VI. Claims 50-53, drawn to a method for diagnosing a muscle wasting disorder in a patient by a determining the level of expression of an F-box polypeptide, classified in class 536, subclass 24.5.

- VII. Claims 54-59, drawn to a method for treating patient suffering from a muscle wasting disorder by administering an atrophin-1 inhibitor effective to inhibit the expression and or/activity of atrophin-1, classified in class 424, subclass 130.1.
- VIII. Claim 60, drawn to a method for stimulating the proliferation of muscle stem cells by contacting the stem cells with a compound capable of inhibiting the expression and or/activity of atrophin-1, classified in class 435, subclass 325.
- IX. Claim 61, drawn to a transgenic livestock animal which is disrupted for atrophin-1, classified in class 800, subclass 13.
- X. Claim 62, drawn to a method of inhibiting protein degradation in muscle of a patient by administering an atrophin-1 inhibitor, classified in class 536, subclass 24.5.

The inventions are distinct, each from the other for following reasons.

The inventions of Groups I-IV and IX are patentably distinct from each other because the inventions are drawn to materially different compositions. The protein, the nucleic acid, the reconstituted protein mixture and the transgenic animals are chemically, biologically and functionally distinct from each other. Therefore, the inventions of Groups I-IV and IX are patentably distinct.

The inventions of Groups V-VIII and X are patentably distinct from each other because the inventions are drawn to methods that require different starting materials and modes of operation. Each method requires distinct steps to achieve a distinct purpose. Therefore, the inventions of Groups V-VIII and X are patentably distinct from each other.

The inventions of Groups I-IV, IX are patentably distinct from the inventions of Groups V-VIII and X because the inventions are drawn to compositions and methods that are not directly related. The method of Groups V-VIII and X do not require the nucleic acid or transgenic animal of Groups II, III and IX. The protein, reconstituted protein mixture of Groups I and IV have uses other than that is claimed in the method of Groups V-VIII and X. For example, the protein can be used to raise antibody, and the protein mixture can be used to measure enzymatic activity of the protein. Therefore, the inventions of Groups I-IV, IX and V-VIII, X are patentably distinct from each other.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper. A search of the subject matter of one invention would not be co-extensive with a search of the other invention, and therefore the search would be burdensome. Each invention is capable of supporting a separate patent.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celine X Qian whose telephone number is 703-306-0283. The examiner can normally be reached on 9:00-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel Ph.D. can be reached on 703-305-1998. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Celine Qian, Ph.D.

Anne-Marie Falk
ANNE-MARIE FALK, PH.D.
PRIMARY EXAMINER